# Effectiveness of a kit supply system to scale up priority healthcare interventions towards universal health coverage: A case for maternal & child health services in Uganda

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## Background

Indicators on maternal and child health (MCH) services demonstrated poor performance with MMR of 430 deaths/100,000 live births, IMR of 54/1,000 live births and fertility of 6.2 children/woman (MDG Report September, 2010). Uganda aims to achieve universal health coverage (UHC) by scaling up the cost effective interventions targeting high risk populations. One of key requirements for attaining UHC is to sustain the availability of vital medicines and supplies used in maternal and child health services to ensure the desired MCH impact on the targeted population. Since 2010, vital medicines are distributed to primary healthcare centers (PHC) using a kit supply system.

## Objective

Using MCH as a case study, this research aimed to assess the performance and effectiveness of the kit supply-system in increasing the availability of vital commodities critical to delivery of prioritized health interventions at PHC where the majority of the population obtain health services. Key research questions were (i) Do the kits contain the type and quantity of vital medicines and supplies required by health facilities to provide health services to the catchment population? (ii) Does an increase in availability of vital commodities lead to an increased utilization of services at health facilities?

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## Methodology

A review of patient records, service statistics and demographic and health survey reports was carried out, and a qualitative and quantitative survey was conducted at 35 randomly selected PHCs that rely on the kit system (17 at level-2 & 18 at level-3, from high and low population/poverty density districts in all regions of Uganda). An assessment was made of the levels and trends in (i) availability and stock outs; (ii) the range and quantity of vital medicines needed at the healthcare facility based on morbidity estimates for the catchment area; and (iii) the range and quantity of items supplied through the kit system.

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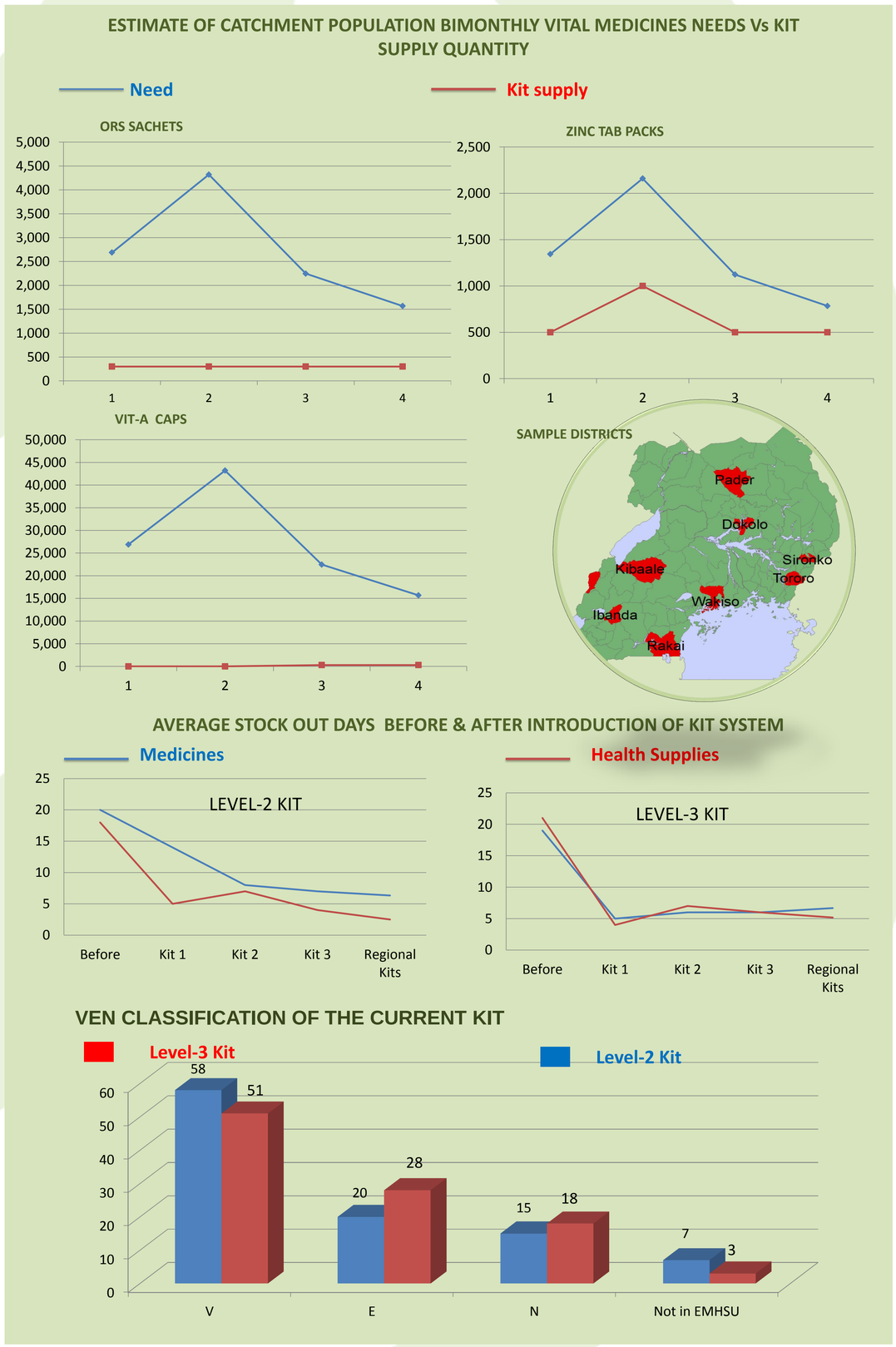
## Results

The introduction of the kit system improved the availability of essential medicines significantly ($p<0.001$) with monthly stock-out days reduced from 20 to 5. However, the increased availability of essential medicines was not associated with an increased availability of the vital medicines and supplies required to deliver MCH priority interventions specifically against child malaria and pneumonia (only 11% of facilities had the required supplies at all times during the 6 month period). Estimated medicine needs for the catchment population based on the incidence of major diseases significantly exceeded the range and quantity supplied in the kits. The fact that patient utilization of services remained constant during the assessment period suggests that the availability of EMHS alone is inadequate to improve access and coverage.




## Conclusion

Although the availability and accessibility of quality medicines and health supplies are critical to the success of UHC, UHC cannot be achieved without simultaneous improvements in both supply and demand systems.

To ensure the effective allocation and utilization of medicines and health supplies, not only is additional funding needed to strengthen the kit system and the prioritization of vital medicines, but so too are medicine management systems that work in concert with the other health systems building blocks. The increased availability of medicines brought about by the introduction of the kit system did not in itself lead to a significant improvement in MCH indicators.